

## 2019 Water Audit Level 1 Validation Document

### Audit Information:

Utility: Vacaville PWS ID: 4810008  
System Type: Potable Audit Period: Calendar 2019  
Utility Representation: Ramiro Jimenez  
Validation Date: 7/30/2020 Call Time: 8:30am Sufficient Supporting Documents Provided: Yes

### Validation Findings & Confirmation Statement:

#### Key Audit Metrics:

Data Validity Score: 62 Data Validity Band (Level): Band III (51-70)  
ILI: 1.89 Real Loss: 32.34 (gal/conn/day) Apparent Loss: 7.11 (gal/conn/day)  
Non-revenue water as percent of cost of operating system: 4.1%

#### Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit. ☒

### Validator Information:

Water Audit Validator: Larry Lewison, Drew Blackwell Validator Qualifications: Contractor for California Water Loss TAP

Validator Provided

## 2019 AWWA Water Audit Level 1 Validation

Water System Name: City of Vacaville

Water System ID Number:

CA4810008

Water Audit Period:

Calendar 2019

### Water Audit & Water Loss Improvement Steps:

Steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

In 2019 the City of Vacaville's Utilities, Public Works and Finance Departments worked collectively to achieve 99% volume-based billing of our customers via automated meter read (AMR) data with a meter read failure (stopped or malfunctioning meter) of under 5%. We monitored customer usage with each billing period to identify and respond to potential water loss occurrences. We further refined our cost data leading to more accurate reporting of our variable production costs, and provided improved flow meter calibration data. These efforts led to an improved validity score in our 2019 water audit from the previous year. Although limited staffing and resources have impeded our ability to implement proactive meter accuracy audits and testing we continue to evaluate our current processes and procedures to identify opportunities for testing, improved data capture, and reduction of real and apparent system water losses. For the 2019 report we retained Cavanaugh & Associates to conduct the Level 1 audit validation.

### Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, *Water Audits and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

Curtis Paxton

Director of Utilities

Executive Name (Print)

Executive Position

Signature 

09/18/20  
Date

Utility Provided